

### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1. (Currently amended) A method for monitoring and controlling a device using only one input/output (I/O) communication pin of said device, said method comprising:
  - configuring said I/O pin to be used to transmit and receive pulses, said pulses comprising first pulses that represent logical ones and second pulses that represent logical zeros, said first pulses having a first width and said second pulses having a second width;
  - ~~indicating logical ones using first pulses that are a first width and indicating logical zeros using second pulses that are a second width; and~~
  - communicating with said device by transmitting and receiving said first and second pulses via said I/O pin[.];
  - configuring said I/O pin by connecting said I/O pin to a first node of a pull-up resistor and connecting a second node of said pull-up resistor to a power source; and
  - said I/O pin being configured as an open collector output that will serve as both an input pin and an output pin.
2. (Canceled)
3. (Previously presented) The method according to claim 1, further comprising the steps of:
  - generating said first and second pulses using an external device that is coupled to said device using said I/O pin.
4. (Original): The method according to claim 3, further comprising the steps of:
  - connecting a first node of a second resistor included within said external device to a power source;
  - connecting a second node of said second resistor to a first node of an LED;
  - connecting a second node of said LED to a first communication pin of said external device;
  - connecting said second node of said LED to a first node of a switch; and
  - connecting a second node of said switch to ground.

5. (Previously presented) The method according to claim 4, further comprising the steps of:  
connecting said first communication pin of said external device to said I/O pin of said device; and  
generating said first and second pulses by opening and closing said switch.
6. (Previously presented) The method according to claim 5, further comprising the steps of:  
generating a bit stream by repeatedly opening and closing said switch to generate said first and second pulses;  
generating said first pulses by closing said switch for a first length of time; and  
generating said second pulses by closing said switch for a second length of time.
7. (Previously presented) The method according to claim 5, further comprising the steps of:  
connecting said first communication pin of said external device to said I/O pin of said device; and  
receiving, by said first communication pin of said external device, said first and second pulses  
transmitted by device utilizing said I/O communication pin; and  
outputting said first and second pulses using said LED.
8. (Original) The method according to claim 3, further comprising the steps of:  
connecting a first node of a bi-directional driver that is included in said external device to a first  
communication pin of said external device; and  
connecting said first communication pin to said I/O pin of said device.
9. (Previously presented) The method according to claim 8, further comprising:  
generating said first and second pulses by said external device and outputting said first and  
second pulses using said first communication pin.
10. (Currently amended) A system for monitoring and controlling a device using only one  
Input/output (I/O) communication pin of said device, said system comprising:  
said I/O pin being configured to both transmit and receive pulses, said pulses comprising first  
pulses that represent logical ones and second pulses that represent logical zeros, said first pulses having a  
first width and said second pulses having a second width;  
~~logical ones being indicated using first pulses that are a first width and logical zeros being  
indicated using second pulses that are a second width; and~~

said I/O pin for transmitting and receiving said first and second pulses to communicate with said device[[.]];

said I/O pin being configured by connecting said I/O pin to a first node of a pull-up resistor and connecting a second node of said pull-up resistor to a power source; and

said I/O pin being configured as an open collector output that will serve as both an input pin and an output pin.

11. (Canceled)

12. (Previously presented) The system according to claim 10, further comprising:

said first and second pulses being generated using an external device that is coupled to said device using said I/O pin.

13. (Original) The system according to claim 12, further comprising:

a first node of a second resistor included within said external device connected to a power source;  
a second node of said second resistor connected to a first node of an LED;  
a second node of said LED connected to a first communication pin of said external device;  
said second node of said LED connected to a first node of a switch; and  
a second node of said switch connected to ground.

14. (Previously presented) The system according to claim 13, further comprising:

said first communication pin of said external device connected to said I/O pin of said device; and  
said first and second pulses being generated by opening and closing said switch.

15. (Previously presented) The system according to claim 14, further comprising:

a bit stream generated by repeatedly opening and closing said switch to generate said first and second pulses;

said first pulses generated by closing said switch for a first length of time; and  
said second pulses generated by closing said switch for a second length of time.

16. (Previously presented) The system according to claim 14, further comprising:  
said first communication pin of said external device connected to said I/O pin of said device; and  
said first communication pin of said external device for receiving said first and second pulses  
transmitted by device utilizing said I/O communication pin; and  
said LED for outputting said first and second pulses.
17. (Original) The system according to claim 12, further comprising:  
a first node of a bi-directional driver that is included in said external device connected to a first  
communication pin of said external device; and  
said first communication pin connected to said I/O pin of said device.
18. (Previously presented) The system according to claim 17, further:  
said first and second pulses generated by said external device and outputting said first and second  
pulses using said first communication pin.
19. (Currently amended) A computer program product for monitoring and controlling a device using  
only one input/output (I/O) communication pin of said device, said product comprising:  
instructions for configuring said I/O pin to be used to transmit and receive pulses, said pulses  
comprising first pulses that represent logical ones and second pulses that represent logical zeros, said first  
pulses having a first width and said second pulses having a second width;  
~~instructions for indicating logical ones using first pulses that are a first width and indicating~~  
~~logical zeros using second pulses that are a second width; and~~  
instructions for communicating with said device by transmitting and receiving said first and  
second pulses via said I/O pin[.];  
instructions for generating a bit stream by repeatedly opening and closing a switch that is external  
to said device and connected to said I/O pin to generate said first and second pulses;  
instructions for generating said first pulses by closing said switch for a first length of time; and  
instructions for generating said second pulses by closing said switch for a second length of time.
20. (Canceled)